WE CLAIM:

1. An imaging system to create a toner particle stack that compensates for image misregistration, the imaging system comprising:

at least two printing stations;

at least one sensor;

a belt comprising a code strip, wherein the code strip is disposed adjacent to the at least one sensor.

2. The imaging system of claim **1**, wherein the code strip includes a plurality of fiduciary marks.

3. The imaging system of claim **2**, wherein the plurality of fiduciary marks are arranged to convey a bi-directional pattern.

4. The imaging system of claim **2** or **3**, wherein each fiduciary mark comprises a first segment and a second segment disposed at an obtuse angle to the first segment.

5. The imaging system of claim **1**, wherein the code strip is an image printed upon the belt.

6. A method to compensate for image misregistration of a toner particle stack in an imaging system, the method comprising:

sensing a code strip on a belt with at least one sensor to produce a first position signal; and

transferring a first toner particle onto the belt from at least one print station as a function of the first position signal; and

sensing the code strip on the belt with the at least one sensor to produce a second position signal; and

transferring a second toner particle onto the first toner particle from the at least one print station as a function of the second position signal.

7. The method of claim 6, wherein the at least two print stations are a first print station comprising the first toner particle and a second print station comprising the second toner particle.

8. The method of claim 6, prior to sensing a code strip, preparing the code strip by arranging a plurality of fiduciary marks to convey a bi-directional pattern.

9. In a non-impact printer having a moving organic photoreceptor, fiduciary marks on the moving photoreceptor surface, an image information data signal source and a light emitting diode array operatively connected to the data signal source for selective energization of individual groups of diodes within the diode array in a cycle in response to the data signal received from the source, such cycle including a predetermined interval of diode

actuation followed by an interval of diode non-actuation, the diode array being located in optical registration with the photoreceptor, the method of compensating for non-uniform photoreceptor motion comprising the steps of:

monitoring the motion of the photoreceptor to generate a timing signal representative of the photoreceptor motion;

and delaying input of the data signal to the diode array in response to variations in the timing signal by varying the duration of the interval of diode non-actuation while maintaining the predetermined interval of diode energization;

whereby actuation of individual groups of the diode array is synchronized with motion of the photoreceptor.

10. An image forming apparatus having a movable organic photoconductor member, the combination of:

(a) a series of discrete fiduciary marks arranged in at least one row about the circumference of the photoconductor member, the row of marks extending in a direction parallel to the direction of movement of the photoconductor member;

(b) at least one image sensor, positioned so that the at least one sensor views a portion of the photoconductor member including at

least two of the marks;

(c) means for operating the at least one sensor to repeatedly scan the photoconductor member portion and the marks currently viewed by the at least one sensor whereby to output on each scan a block of image signals representing the image presented by the photoconductor member portion with the marks, the image changing as the photoconductor member with the row of marks moves past the at least one sensor; and

(d) means for converting the blocks of image signals into a clock signal representative of the velocity of the photoconductor member.

11. The apparatus of claim **10** in which the clock signal is representative of the position and velocity of the photoconductor member.

12. The apparatus of claim **10** or **11** in which the movable photoconductor member comprises an endless photoreceptor belt.

13. An image forming apparatus having a movable organic photoconductor member, the combination of:

(a) a series of discrete fiducial marks arranged in at least one row about

the circumference of the recording member, the row of marks extending in a direction parallel to the direction of movement of the organic photoconductor member;

(b) a stationary array having at least one row of image sensors, the longitudinal axis of the array being parallel to the direction of movement of the photoconductor member with the array positioned so that the row of sensors view a portion of the photoconductor member including at least two of the marks;

(c) means for operating the array to repeatedly scan the photoconductor member portion and the marks currently viewed by the row of sensors whereby to output on each scan a block of image signals representing the image presented by the photoconductor member portion with the marks, the image changing as the photoconductor member with the row of marks moves past the array; and

(d) means for converting the image signals into position control signals representing the instantaneous position of the photoconductor member.

14. The apparatus of claim **13** in which the movable photoconductor member comprises an endless photoreceptor belt.

15. A method of compensating for image misregistration of a pixel produced by a light source onto an image carrying member surface in an imaging system, the pixel having an uncompensated pixel position that is out of alignment with an ideal pixel position, the method comprising:

sensing fiduciary markings on a code strip;

the code strip affixed onto the image carrying member;

the markings measured in at least two orthogonal directions;

with at least one sensor;

determining the image misregistration as a distance between the ideal pixel position and the uncompensated pixel position; and

matching the uncompensated pixel position to the ideal pixel position.

16. The method of claim **15**, wherein the matching step comprises:

delaying a formation of the pixel on the substrate by an amount of time corresponding to the image misregistration.

17. The method of claim **16**, wherein the matching step further comprises:

determining a time factor based on the image misregistration.

18. The method of claim **16**, wherein the step of determining a time factor further comprises:

determining a time factor that is proportional to a magnitude of the distance of the image misregistration.

19. The method of claim **15**, wherein the determining step further comprises: determining a magnitude of the distance of the image misregistration.

20. The method of claim **19**, wherein the matching step further comprises: determining a time factor that is proportional to the magnitude of the distance of the image misregistration.

21. The method of claim **20**, wherein the matching step further comprises: actuating the light source at a time modified by the time factor.

22. The method of claim **19**, wherein the determining step further comprises: determining a direction of the image misregistration.

23. The method of claim **22**, wherein the matching step further comprises: determining a time factor that is proportional to the magnitude of the distance of the image misregistration and that has a sign indicative of the direction of the image misregistration.

24. The method of claim **23**, wherein the matching step further comprises: actuating the light source at a time modified by the time factor.

25. The method of claim **15**, wherein the imaging system includes an array of light sources each producing a pixel having an uncompensated pixel position that is out of alignment with an ideal pixel position;

the determining step comprising:

determining the image misregistration as a distance between the ideal pixel position and the uncompensated pixel position for each light source; and

the matching step comprising matching the uncompensated pixel position to the ideal pixel position for each light source.